EMERALD ASH BORER - OVERVIEW AND HISTORY

The Emerald Ash Borer is an exotic pest from Asia that was first discovered in six Southeast Michigan counties (Livingston, Macomb, Monroe, Oakland, Washtenaw and Wayne) in the summer of 2002. It has also been detected in Windsor, Ontario of Canada. It is a pest that affects ash trees and belongs to a group of insects known as metallic woodboring beetles. To date, it has damaged or killed millions of ash trees in these affected areas.


Adult Emerald Ash Borer

DISTRIBUTION / HOST

The Emerald Ash Borer is not native to Michigan or anywhere else in the United States. It is found primarily in Asia and has occurred in China, Korea, Japan, Mongolia, Taiwan and Eastern Russia. In Michigan, this pest is only known to attack green, white or black ash trees. Emerald Ash Borer does not attack mountain ash, which is not related to white, black or green ash trees.

Ash trees can be identified by their distinctive leaves and bark. Ash trees have several leaves per leaf stem, and the leaves are located directly across from each other.


Healthy ash tree


Healthy ash bark


Ash tree leaves

This information is brought to you by:

Michigan Department of Agriculture
Michigan Department of Natural Resources
Michigan State University
U.S. Department of Agriculture, Animal and Plant Health Inspection Service
U.S. Department of Agriculture, Forest Service

FOR MORE INFORMATION

For general information, visit the state's **Emerald Ash Borer web site** at **www.michigan.gov/mda** and use the key word "ash borer."

To report any signs of Emerald Ash Borer or dying ash trees, especially outside of the quarantined counties, call the state's toll-free **Emerald Ash Borer hotline** at **866/325-0023** or contact your local MDA or MSU Extension office.

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PEST ALERT:

Emerald Ash Borer

An Unwanted Hitchhiker

IDENTIFICATION / APPEARANCE

Emerald Ash Borer adults are dark metallic green in color, 1/2 inch in length and 1/16 inch wide. They are only present from mid May to late July. Larvae are creamy white in color and are found under the bark. Their appearance typically goes undetected until trees show symptoms of being infested.

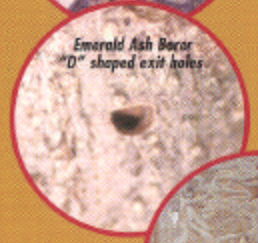
Adult Emerald Ash Borer – male

SYMPTOMS

Infestation of Emerald Ash Borer can be difficult to detect until tree canopy die back occurs – usually the upper third of a tree will thin and die back. This is usually followed by a large number of shoots or branches arising below the dead portions of the trunk. Evidence of infestation includes D-shaped exit holes on branches and the trunk. Tissue produced by the tree in response to larval feeding may also cause vertical splits to occur in the bark. Distinct S shaped larval feeding tunnels may also be apparent under the bark.

Emerald Ash Borer larva

Split bark over an Emerald ash borer larval gallery



Emerald Ash Borer "D" shaped exit holes

Emerald Ash Borer "S" shaped larval feeding tunnels

Root and stem suckers below Emerald Ash Borer activity on trunk

PREVENTING THE SPREAD OF EMERALD ASH BORER

The Michigan departments of Agriculture (MDA) and Natural Resources and the U.S. Department of Agriculture's Animal and Plant Health Inspection Service and Forest Service, in cooperation with local governments, conducted extensive surveys to determine the Emerald Ash Borer's range and extent of damage.

With this information, state officials issued a quarantine on all ash trees and ash wood products in the affected counties to prevent and control the spread of the Emerald Ash Borer. Under this quarantine, ash trees, branches, logs, and firewood may NOT be moved outside of this area unless certified for movement by MDA. Similar restrictions apply to ash lumber and ash wood chips larger than one inch in diameter. Ash wood chips less than one-inch in diameter are considered exempt from the quarantine requirements.

Simply put, it is illegal to move ash trees or products, including firewood, out of Livingston, Macomb, Monroe, Oakland, Washtenaw and Wayne counties. Firewood may appear healthy and not visibly infested but may carry the Emerald Ash Borer larvae in its dormant stage. Don't be responsible for the spread of Emerald Ash Borer by moving ash trees and products outside of these affected counties or by taking firewood on vacation with you. Imagine how your neighborhood or favorite vacation spot would look with some or all of the ash trees gone. If you have inadvertently moved ash firewood out of this area, please burn it completely and report it via the state's toll-free **Emerald Ash Borer hotline (866/325-0023)**. Additionally, if you don't know what type of firewood it is, please don't move it. It is vitally important that you cooperate with MDA to help limit the spread of this new ash tree pest.

Diseased ash tree canopy

TREATMENT / CONTROL OPTIONS

Very little information on the beetle is available from its native region, and limited control or management recommendations exist to date. To help effectively control and eradicate the Emerald Ash Borer and the threat it poses to Michigan and North America ash resources, aggressive and comprehensive research projects and efforts, spearheaded by Michigan State University (MSU), are currently underway to learn more about this pest's biology and develop appropriate management, control and eradication options.

In the interim, plant health officials recommend an integrated, comprehensive approach of proper sanitation, diversity in new plantings, practicing sound tree care techniques, and possibly using appropriate insecticide treatments. Until the research findings become available, consumers and homeowners are urged to be wary of companies promising a solution or cure to the Emerald Ash Borer. Contact your local MSU Extension office for further information, recommendations and one-on-one technical assistance regarding potential treatment of this pest.

Successful eradication of the Emerald Ash Borer and controlling and minimizing the damage this pest can cause requires the coordination of federal, state, local and university efforts and resources, along with cooperation of all Michigan residents.